



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,166	11/17/2000	Paul A. Medwick	1559A1	4576

24959 7590 06/14/2002

PPG INDUSTRIES INC
INTELLECTUAL PROPERTY DEPT
ONE PPG PLACE
PITTSBURGH, PA 15272

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
----------	--------------

1775

DATE MAILED: 06/14/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

ME-8

Office Action Summary	Application No. 09/714,166	Applicant(s) MEDWICK ET AL.	
	Examiner Andrew T Piziali	Art Unit 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/17/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5,6</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 6 recites the limitation "the metal alloys are selected from the group consisting of...". There is insufficient antecedent basis for this limitation in the claim. Examiner suggests amending claim 6 to be dependent on claim 4.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-6, 8, 11, 13-24, 26-27, 31-35 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 5,902,505 to Finley.

Finley discloses a solar control article comprising a first glass substrate, a second glass substrate, and a substantially transparent coating on a surface of at least one of the glass substrates (column 5, lines 8-30 and column 6, lines 16-48). Finley discloses that the substantially transparent coating comprises a first anti-reflection layer of tin/zinc oxide overlying

Art Unit: 1775

the glass substrate, a first titanium buffer layer overlaying the first anti-reflection layer, an infra-red reflective layer of silver metal directly overlying the first buffer layer, a second titanium buffer layer directly overlying the infra-red reflective layer, a second anti-reflective layer of tin/zinc oxide overlying the second buffer layer, a third buffer layer of titanium overlying the second anti-reflection layer, a second infra-red reflective layer of silver metal directly overlying the third buffer layer, a fourth buffer layer of titanium overlying the second infra-red reflective layer of silver metal and a third anti-reflection layer of tin/zinc oxide overlying the fourth buffer layer, and a protective overcoat deposited over the third antireflective layer (claim 1 of Finley).

Finley discloses that a typical solar control article of his invention possesses a visible light transmittance of 73 percent and a visible reflectance of 8 percent (column 7, lines 16-28). Finley does not mention the shading coefficient of the solar control article, but considering the substantially identical glass article of Finley, compared to the applicant's, the glass article of Finley would necessarily possess a shading coefficient of less than about 0.32.

Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Art Unit: 1775

Regarding claim 11, Finley discloses that the thickness of the buffer layers are about 10 to 30A (column 3, lines 63-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-10, 12, 29-30 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,902,505 to Finley.

Finley discloses that the first anti-reflection layer may have a thickness of 300A, the first silver layer may have a thickness of 100A, the second anti-reflection layer may have a thickness of 600A, the second silver layer may have a thickness of 100A, and a final anti-reflection layer may have a thickness of 300A (column 6, lines 17-48).

Finley discloses that it is known in the art to vary the thickness of a silver layer to determine the thickness for the desired amount of reflectance (column 5, lines 18-30). Finley also discloses that it is known in the art to vary the thickness of an anti-reflection layer to determine the thickness for the desired amount of transmittance (column 6, lines 28-32). Absent a showing of unexpected results it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thicknesses of the silver layers and the anti-reflection layers to determine the thicknesses for the desired amounts of reflectance and transmittance as disclosed by Finley.

Art Unit: 1775

6. Claims 7, 25 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,902,505 to Finley in view of US Patent No. 5,821,001 to Arbab.

Finley does not mention the use of at least one antireflective layer that comprises a plurality of antireflective films, but Arbab discloses that a two part antireflective layer exhibits certain special characteristics that include chemical and heat stability (column 4, lines 35-39). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use at least one antireflective layer comprising a plurality of antireflective layers, as disclosed by Arbab, because they exhibit chemical and heat stability.

7. Claims 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,902,505 to Finley in view of US Patent No. 5,776,603 to Zagdoun.

Finley does not disclose the specific use of the glass article as an insulated glass unit, but does disclose that the article may be used for any transparency for any vehicle, including aircraft, or any other enclosed space (column 5, lines 14-17). Zagdoun discloses that it is known in the art to mount a coated glass article between two substrates with a gas-filled space defined there between for reinforced thermal insulation (column 1, lines 30-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the glass article of Finley in a dual glass plate arrangement with a gas-filled space, because this article possesses reinforced thermal insulation suitable for many applications.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Piziali whose telephone number is (703) 306-0145 and

Art Unit: 1775

whose fax number is (703) 746-7037. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.

G-17

6/7/02

atp


DEBORAH JONES

SUPERVISORY PATENT EXAMINER